

REMARKS

[0001] Claims 1-30 are pending. The Office Action mailed September 13, 2006 (hereinafter "Office Action") rejected claims 1, 5-7, 10, 13, 17, 20-23, 25, 27, 29, and 30 under 35 U.S.C. § 102(b) as being anticipated by Yoshimura, et al., U.S. Patent No. 5,903,291 (hereinafter "Yoshimura"). The Office Action rejected claim 2 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Wiederner, U.S. Patent No. 7,042,476 (hereinafter "Wiederner"). The Office Action rejected claims 3-4 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura as modified by Wiederner as applied to claim 1, and further in view of Shibata, U.S. Patent No. 6,296,347. The Office Action rejected claims 8-9 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Abe, U.S. Patent No. 6,406,133 (hereinafter "Abe"). The Office Action rejected claims 11 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Mitchell, Jr., U.S. Patent No. 5,362,427 (hereinafter "Mitchell"). The Office Action rejected claims 12 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Shima, et al., U.S. Patent No. 5,801,730 (hereinafter "Shima"). The Office Action rejected claims 2 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Mutou, U.S. Patent No. 5,227,814 (hereinafter "Mutou"). The Office Action rejected claims 16 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Wiederner and Shibata. The Office Action rejected claims 18 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Minemoto, U.S. Patent No. 6,224,193 (hereinafter "Minemoto").

REJECTION OF CLAIMS 1, 5-7, 10, 13, 17, 20-23, 25, 27, 29, 30 UNDER 35 U.S.C. § 102(b)

[0002] The Examiner rejected claims 1, 5-7, 10, 13, 17, 20-23, 25, 27, 29, and 30 under 35 U.S.C. § 102(b) as being anticipated by Yoshimura. The Applicant respectfully traverses this rejection. "Anticipation under 35 U.S.C. § 102 requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention. ... Whether such art is anticipating is a question of fact." *Apple Computer, Inc. v. Articulate Systems, Inc.* 234 F.3d 14, 20, 57 USPQ2d 1057, 1061 (Fed. Cir. 2000). It is well settled that under 35 U.S.C. § 102 "an invention is

anticipated if . . . all the claim limitations [are] shown in a single art prior art reference. Every element of the claimed invention must be literally present, arranged as in the claim. The identical invention must be shown in as complete detail as is contained in the patent claim.” *Richardson v. Suzuki Motor Co., Ltd.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). In determining whether a prior art reference anticipates a claim, it is necessary to (1) determine the scope of Applicant's broadest claim, (2) determine exactly what the single prior art reference discloses, and (3) compare each and every claim limitation against the prior art disclosure. *SSIH Equipment, S.A. v. U.S Int'l Trade Commission et al.*, 218 U.S.P.Q. 678, 688. Only if each limitation is literally disclosed by the prior art reference is the claim anticipated.

[0003] Initially, it may be useful to review the invention described in the application and the disclosures of the prior art. In general, the application describes a system, apparatus, and method for electrorheological printing. Application of Timothy G. Bradley, filed March 12, 2004, application no. 10/799,486 (hereinafter “Application”) at Abstract. A drop generator 108 includes a pressurized ink chamber 112 that contains an electrorheological ink. *Id.* at ¶¶ 40, 44, 49, Figs. 1, 2, 3. Electrorheological ink differs from other ink in that it changes viscosity in response to an electrical field. *Id.* at ¶¶ 6, 7. The pressurized ink chamber 112 is in fluid communication with a nozzle 204, 301. *Id.* at ¶ 11, Figs. 1, 3.

[0004] A stimulator 114 generates a synchronization signal that increases the pressure in the pressurized ink chamber 112. *Id.* at ¶¶ 12, 54, Figs. 1, 4. As the synchronization signal is enabled, the stimulator 114 increases pressure above a threshold at which electrorheological ink may be discharged through the nozzle 204, 301. *Id.* at ¶¶ 52-55, Fig. 4. An electrode arrangement 304, 306, 308, 310 creates an electric field to control a flow of electrorheological ink at the nozzle. *Id.* at ¶¶ 14, 47-50, Figs. 3, 4. When enough voltage is applied, the flow through the nozzle 204, 301 is stopped. *Id.* at ¶ 50. When a print signal in the form of an electrical signal is applied to the electrode arrangement 304, 306, 308, 310, flow of electrorheological ink through the nozzle 204, 301 is controlled. *Id.* at ¶¶ 51-56, Fig. 4. When a print signal is enabled, the ink stops and when the print signal is disabled, the ink flow is controlled by the stimulator 114. *Id.*

[0005] In one embodiment, a viscosity control module 510 varies the voltage to the electrode arrangement 304, 306, 308, 310 to vary the viscosity of the ink, and thus vary the flow of the ink. *Id.* at ¶ 63. In another embodiment, a media compensation module 512 adjusts the control signals to compensate for the speed of the printed media passing below the drop generator 108. *Id.* at ¶ 64. An electrode control module 508, in another embodiment, controls the nozzles 301 in a nozzle array 200. *Id.* at ¶ 62.

[0006] By contrast Yoshimura teaches a common ink pressure chamber 24 filled with non- electrorheological ink separated from a plurality of ink chambers 21, each with an orifice 10, by a filter 22. Yoshimura at Figs. 2, 3A, 3B, col. 5, ll. 49-63. A piezo-electric element 31 applies pressure to the ink in the common ink chamber 24 which is transferred to the adjacent plurality of ink chambers 21 through the filter 22. *Id.* at Figs. 2, 3A, 3B, col. 5, ll. 64-66, col. 6, l. 48 to col. 7, l. 12. The plurality of ink chambers 21 are each separated from an electroviscous fluid chamber 5 filled with an electroviscous fluid and *separated* from the ink in the plurality of ink chambers 21 by an *elastic film* 28. *Id.* at Figs. 2, 3A, 3B, col. 5, l. 64 to col. 6, l. 3. The electroviscous fluid chamber 5 includes an upper film 29 to cover the electroviscous fluid. *Id.* at Figs. 2, 3A, 3B, col. 6, ll. 4-6.

[0007] Electrodes 26, 26A are positioned on each side of the electroviscous fluid chamber 5 and change the viscosity of the electroviscous fluid upon application of a voltage. *Id.* at Figs. 2, 3A, 3B, col. 6, ll. 6-12. When no voltage is applied to a pair of electrodes 26, 26A, pressure transferred to the corresponding ink chambers 21 from the common ink chamber 24 is absorbed by the electroviscous fluid through the elastic film 28 such that no ink is pushed out of the orifice 10. *Id.* at Figs. 3A, col. 7, ll. 27-34. When voltage is applied to the pair of electrodes 26, 26A, the viscosity of the electroviscous fluid increases so that pressure applied to the ink in the corresponding ink chamber 21 from the common ink chamber 24 causes ink to be pushed out of the ink chamber's orifice 10. *Id.* at Figs. 3B, col. 7, ll. 35-39. Yoshimura describes several variations on the embodiment of Figures 2, 3A, and 3B, but all embodiments have one or more chambers 21, 24 with non-electrorheological ink separated from an electroviscous fluid chamber 5 by an elastic film 28. *See generally id.*

Claim 1

[0008] With regard to claim 1, the Office Action states that Yoshimura discloses “a pressurized ink chamber configured to contain an electrorheological ink, the pressurized ink chamber in fluid communication with a nozzle” and cites the Abstract and column 3, lines 32-43 and 53-59 of Yoshimura. Office Action at p. 3. The Applicant disagrees. The Abstract and cited text do not describe an electrorheological ink, but instead describe a pressurized chamber with non-electrorheological ink separated from an electroviscous fluid by an elastic film 28. Yoshimura at Abstract, column 3, ll. 32-43, 53-59.

[0009] All of the Figures, Summary of the Invention, and Description of the Preferred Embodiments of Yoshimura describe printing system with non-electrorheological ink separated from an electroviscous fluid by an elastic film 28. *See generally id.* Rather than changing the viscosity of electrorheological ink using an electric field, as required by claim 1, the invention of Yoshimura uses an electric field to change the viscosity of an electroviscous fluid in an adjacent chamber 5 to absorb or not absorb pressure changes from a common pressure chamber 24. *Id.* at Figs. 2, 3A, 3B, col. 7, ll. 27-39. The Applicant respectfully asserts that Yoshimura does not anticipate claim 1 and that claim 1 is in condition for allowance.

Claim 5

[0010] With regard to claim 5, the Office Action states that Yoshimura discloses “the electrode (26,26a) comprises one or more electrodes circumscribing a portion of the nozzle (10)” and cites Figure 2 of Yoshimura. Office Action at p. 2. The Applicant disagrees. The electrodes 26 and 26a are clearly shown in Figures 3A and 3B on either side of the electroviscous chamber 5, and not circumscribing the nozzle 10. Yoshimura at Figs. 3A, 3B. The accompanying description also make it clear that the electrodes 26, 26a are positioned to induce an electrical field on the electroviscous fluid in the electroviscous fluid chamber 5, and are not positioned to induce an electrical field on the non-electrorheological ink in chamber 21. *Id.* at col. 7, ll. 35-39. Clearly, the electrodes 26, 26a taught by Yoshimura do not circumscribe a portion of the nozzle 10. The Applicant respectfully asserts that Yoshimura does not anticipate claim 5 and that claim 5 is in condition for allowance.

Claims 6 and 21

[0011] With regard to claims 6 and 21, the Office Action states that Yoshimura discloses “the electrode arrangement is configured to create an electric field to stop the flow of electrorheological ink in the nozzle” and cites column 2 line 67 to column 3 line 3 of Yoshimura as evidence. Office Action at p. 2. The Applicant disagrees. The citation reads: “. . . to discharge ink from the ink chamber, and a control device responsive to record information to apply a voltage to alter the viscosity of the **electroviscous fluid** for controlling **ink** discharge from the orifice.” Yoshimura at col. 2, l. 67 to col. 3, l. 3 (emphasis added). The cited text does not disclose creating an electrical field to stop **electrorheological ink**, but instead describes the invention of Yoshimura where an electrical field is applied to an electroviscous fluid in a separate chamber 5 from the ink chamber 21, where the chambers 5, 21 are separated by an elastic film 28. *See id.* at Figs. 3A, 3B, col. 2, l. 55 to col. 3, l. 3, col. 7, ll. 17-45. The Applicant respectfully asserts that Yoshimura does not anticipate claims 6 and 21 and that claims 6 and 21 are in condition for allowance.

Claims 7 and 22

[0012] With regard to claims 7 and 22, the Office Action states that Yoshimura discloses “the electrode arrangement is configured to create an electric field to slow the flow of electrorheological ink in the nozzle” and cites column 3 lines 5-11 of Yoshimura as evidence. Office Action at p. 3. The Applicant disagrees. The citation reads: “When the control device applies a voltage to the electrode in response to record information, the **viscosity of the electroviscous fluid is modified**. This change in viscosity causes variation in the level of transmittance of pressure **via the elastic film between the ink chamber and the electroviscous fluid chamber**, whereby control is provided of ink discharge from the orifice.” Yoshimura at col. 3, ll. 5-11 (emphasis added). The cited text does not disclose creating an electrical field to slow **electrorheological ink**, but instead describes the invention of Yoshimura where an electrical field is applied to an electroviscous fluid in a separate chamber 5 from the ink chamber 21, where the chambers 5, 21 are separated by an elastic film 28. *See id.* at Figs. 3A, 3B, col. 3,

ll. 5-11, col. 7, ll. 17-45. The Applicant respectfully asserts that Yoshimura does not anticipate claims 7 and 22 and that claims 7 and 22 are in condition for allowance.

Claim 13

[0013] With regard to claim 13, the Office Action states that Yoshimura discloses “a viscosity control module configured to control the viscosity of the electrorheological ink as the electrorheological ink discharges from the nozzle” and cites the Abstract and column 3, lines 32-43 and 50-59 of Yoshimura as evidence. Office Action at p. 3. The Applicant disagrees. As described above, Yoshimura does not describe control of an electrorheological ink through a nozzle, but instead describes controlling ink in a chamber 21 in communication with a nozzle 10 by controlling viscosity of an electroviscous fluid in a separate electroviscous fluid chamber 5 separated by an elastic film 28. Yoshimura at Figs. 2, 3A, 3B, col. 5, l. 49 to col. 7, l. 54. The Applicant respectfully asserts that Yoshimura does not anticipate claim 13 and that claim 13 is in condition for allowance.

Claims 17, 20, 23, 25, 27, 29, and 30

[0014] The Applicant respectfully asserts that claims 17, 29, and 30 are similar in scope to claim 1 and that the arguments presented above for claim 1 are equally applicable and therefore claims 17, 29, and 30 are allowable. In addition, the Applicant asserts that claims 5-7, 10, 13, 17, 20-23, 25, and 27 are allowable because the Office Action has failed to describe how Yoshimura anticipates the claims and the Applicant asserts that claims 1, 5-7, 10, 13, 17, 20-23, 25, 27, 29, and 30 are not anticipated by Yoshimura and are allowable.

REJECTION OF CLAIMS 2-4, 8, 9, 11, 12, 14-16, 18, 19, 24, 26, AND 28 UNDER 35 U.S.C. §103(a)

[0015] The Office Action rejected claims 2-4, 8, 9, 11, 12, 14-16, 18, 19, 24, and 26 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of several references. The Applicant respectfully traverses this rejection. The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. MPEP at § 2142. The prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP at § 2142. In addition, even if all the claim limitations are taught or suggested by the prior art references, there

must be some suggestion or motivation to combine reference teachings to establish obviousness. MPEP §2142. Obviousness may be rebutted by showing that “the art, in any material respect, teaches away from the claimed invention.” MPEP at § 2144.05.III. “A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference’s disclosure is unlikely to be productive of the result sought by the applicant.” *United States v. Adams*, 383 U.S. 39, 52, 148 USPQ 479, 484 (1966). The Applicant respectfully asserts that Yoshimura combined with Weidermer, Shibata, Abe, Mitchell Jr., Shima, Mutou, and Minemoto fail to teach or disclose each element of the claimed invention as required under 35 U.S.C. § 103(a). The Applicant asserts that there is no motivation, suggestion, or teaching in any of the references to combine the references. The Applicant also asserts that Yoshimura teaches away from the Applicant’s claimed invention.

Claim 2

[0016] The Office Action states that Yoshimura discloses all of the elements of claim 2 except “the electrode arrangement comprises a ring electrode pair having a first ring electrode and a second ring electrode.” Office Action at p. 5. The Office Action states that Weidermer discloses the omitted element with elements 50 and 52 corresponding to the first and second electrode rings. *Id.* The Applicant disagrees. The first and second electrode rings of claim 2 comprise the electrode arrangement in claim 1 configured to create an electric field to control a flow of the electrorheological ink at the nozzle. *See* Application at claims 1, 2.

[0017] Weidermer discloses a pit 61 in a roller 10 of a high speed printing press. Weidermer at col. 2, ll. 40-64, col. 3, ll. 5-7 (matrix 32 comprises print elements 34 that comprise pits in the surface of a print roller 10). Each pit is filled with ink that is discharged to a print medium 26 by a pressure wave caused by a spark. *Id.* at col. 3, ll. 52-54, col. 4, ll. 30-36. Figure 5 of Weidermer depicts a pit 61 in a roller 10 with a single concentric ring electrode 50 and a point electrode 52 that are electrically isolated. *Id.* at Fig. 5, col. 4, ll. 30-36. Figure 4 is a

plan view of the electrode arrangement with electrical conductors connecting the electrodes 50, 52 and electrically isolated. *Id.* at Fig. 4, col. 4, ll. 11- 29.

[0018] The first and second ring electrodes producing an electrical field to change viscosity of an electrorheological ink of claim 2 are in no way related to a point electrode 52 and a ring electrode 50 positioned at the bottom of a pit 61 in a roller 10 of a high speed printing press. The Applicant asserts that Wiedemer does not disclose the first and second ring electrodes of claim 2.

[0019] In addition, the Applicants respectfully assert that Weidemer is non-analogous art. Determining that a cited reference is non-analogous requires a two-step process. *In re Deminski*, 796 F.2d 436, 441-2 (Fed. Cir. 1986); MPEP § 2141.01(a).I. The first step is to determine if the reference is within the inventor's field of endeavor. *Id.* If so, then the reference is analogous. *Id.* If the reference is not within the inventor's field of endeavor, the second step is to determine if the reference is reasonably pertinent to the particular problem with which the inventor was involved. *Id.*

[0020] The first question, whether the reference is in the inventor's field of endeavor is narrow in scope. It is not sufficient that the reference and the claimed invention are both in the computer science art as demonstrated by *in re Oetiker*, 997 F.2d 1443 (Fed. Cir. 1992). The *Oetiker* decision is cited in great detail at MPEP § 2141.01(a).IV – ANALOGY IN THE MECHANICAL ARTS:

“Applicant claimed an improvement in a hose clamp which differed from the prior art in the presence of a preassembly “hook” which maintained the preassembly condition of the clamp and disengaged automatically when the clamp was tightened. The Board relied upon a reference which disclosed a hook and eye fastener for use in garments, reasoning that all hooking problems are analogous. The court held the reference was not within the field of applicant's endeavor, and was not reasonably pertinent to the particular problem with which the inventor was concerned because it had not been shown that a person of ordinary skill, seeking to solve a problem of fastening a hose clamp, would reasonably be expected or motivated to look to fasteners for garments. The Commissioner further argued in the brief on appeal that a disengageable catch is a common everyday mechanical concept, however the court held that the Commissioner did not explain why a “catch” of unstated structure is such a concept, and why it would have made the claimed invention obvious.” MPEP § 2141.01(a).IV

[0021] Thus, a reference to a garment hook was found to not be in the field of endeavor for an invention relating to a hose clamp. The fact that the claimed invention was for hose clamps rather than garment hooks was a sufficient distinction to remove the claimed invention from the same field of endeavor as the cited reference.

[0022] With respect to the claim 2, the invention relates to ink jet printers using electrorheological ink. Application at claim 2, Title, ¶ 1. This field of endeavor is distinct from the Weidermer reference which relates to a high speed web printing press, and in particular transferring ink from pits 61 in a roller 10 to a print medium 26. *See* Application at claims 1, 2; *see generally* Weidermer. The mere fact that both relate to printing and Figure 4 of Weidermer includes electrodes in a ring pattern while claim 2 includes a first and second ring electrode is not sufficient to establish the same field of endeavor. This is supported by the MPEP's citation to *Oetiker* which teaches that two references that both relate to hooking problems are not necessarily analogous simply because both references are a common everyday mechanical concept. MPEP 2141.01(a).IV.

[0023] The second part of the two-part test for analogous art requires that the cited reference be reasonably pertinent to the particular problem with which the inventor was involved. "A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992). To answer this question, the purpose of the reference and the claimed invention are compared.

[0024] The cited reference seeks to solve a problem related to transferring a small droplet of ink from a pit 61 in a high speed roller 10 to a print medium 26 using a high voltage spark. In contrast, the present invention as recited in claim 2 and in the specification, seeks to control transferring electrorheological ink from a pressure chamber by controlling viscosity of the ink. Application at claim 2, ¶¶ 1, 13, 14. The problems are completely different. The high speed printing problem matching does not commend itself to the mind of an inventor trying to control

ink in an inkjet printer. Under the second part of the test described in *Deminski* and MPEP § 2141.01(a), the purposes of the reference and claim 2 are not pertinent to the same problem. Thus, Weidermer is not analogous art and is an improper 35 USC § 103(a) reference.

Claims 3 and 4

[0025] The Office Action rejected claims 3-4 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura as modified by Wiedemer as applied to claim 1, and further in view of Shibata. Office Action at p. 5. The Office Action states that Yoshimura as modified by Weidermer discloses all of the claimed limitations except the limitations listed in claims 3 and 4. *Id.* at 6. The Office Action then states that Shibata discloses the omitted elements and cites column 2, lines 60-64, column 4, lines 54-65, column 5, lines 29-38, and column 6, lines 3-10 of Shibata as evidence. *Id.* The Applicant disagrees. The cited text describes electrical leads and power supply connections for a toner cartridge with configured to charge particles so they jump to paper. Shibata at col. 2, ll. 60-64, col. 4, ll. 54-65, col. 5, ll. 29-38, col. 6, ll. 3-10; *see generally* Shibata. Electrical leads and a voltage supply could conceivably be cited from almost any prior art with a power supply. However, the Federal Circuit requires the art to be analogous. *See in re Deminski*; MPEP 2141.01(a). Shibata is non-analogous art.

[0026] As stated above, the two-part test for analogous art is 1) determine if the reference is within the inventor's field of endeavor, and 2) determine if the reference is reasonably pertinent to the particular problem with which the inventor was involved. *In re Deminski*, 796 F.2d 436, 441-2 (Fed. Cir. 1986); MPEP § 2141.01(a).I. The field of art for Shibata is electrostatic recording using dry toner particles. *See* Shibata at Title, Abstract. The field of art for the Application is controlling an electrorheological ink in a pressure chamber of an ink-jet printer. Application at claim 2, Title, ¶ 1. The field of endeavor of Shibata is completely different than the field of endeavor of the Application. As for the second test, Shibata uses an electrical field to move dry toner particles from a roller toward a back electrode and onto paper. *See* Shibata at Abstract, Fig. 2, col. 4, l. 12 to col. 5, l. 9. Shibata also fails the second part of the

test. Shibata is non-analogous art and an improper 35 U.S.C. § 103(a) reference. The Applicants assert that claims 3 and 4 are in condition for allowance.

Claims 8 and 9

[0027] The Office Action rejected claims 8-9 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Abe. Office Action at p. 7. The Office Action states that Yoshimura discloses all of the claimed limitations except for the limitations listed in claims 8 and 9. *Id.* The Office Action then states that Abe discloses the omitted elements of claims 8 and 9 and cites column 14, lines 9-15 of Abe as evidence. *Id.* The Applicant disagrees. The cited text describes multiple nozzles controlled independently for electrostatic printing. Abe at Title, Abstract, col. 13, l. 16 to col. 14, l. 35; *see generally* Abe. Electrostatic printing is not analogous to inkjet printing using a pressure chamber and an electrorheological ink. The Federal Circuit requires the art to be analogous. *See in re Deminski*; MPEP 2141.01(a). Abe is non-analogous art.

[0028] As stated above, the two-part test for analogous art is 1) determine if the reference is within the inventor's field of endeavor, and 2) determine if the reference is reasonably pertinent to the particular problem with which the inventor was involved. *In re Deminski*, 796 F.2d 436, 441-2 (Fed. Cir. 1986); MPEP § 2141.01(a).I. The field of art for Abe is electrostatic recording by "discharging droplets by driving a diaphragm with electrostatic force between electrodes on the diaphragm side and electrodes that face the diaphragm-side electrodes." Abe at Title, Abstract, col. 1, ll. 8-14. The field of art for the Application is controlling an electrorheological ink in a pressure chamber of an ink-jet printer. Application at claim 2, Title, ¶ 1. The field of endeavor of Abe is completely different than the field of endeavor of the Application. As for the second test, Abe describes methods of creating an ink jet head with electrodes bonded to a diaphragm. *See* Abe at col. 4, ll. 28-39. Abe also fails the second part of the test. Abe is non-analogous art and an improper 35 U.S.C. § 103(a) reference. The Applicants assert that claims 8 and 9 are in condition for allowance.

Claims 11 and 24

[0029] The Office Action rejected claims 11 and 24 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Mitchell. Office Action at p. 8. The Office Action states that Yoshimura discloses all of the claimed limitations except for the limitations listed in claims 11 and 24. *Id.* The Office Action then states that Mitchell discloses the omitted elements of claims 11 and 24 and cites claim 8 of Mitchell as evidence. *Id.* at p. 9. The Applicant disagrees. The Applicants respectfully asserts that Mitchell is non-analogous art.

[0030] As stated above, the two-part test for analogous art is 1) determine if the reference is within the inventor's field of endeavor, and 2) determine if the reference is reasonably pertinent to the particular problem with which the inventor was involved. *In re Deminski*, 796 F.2d 436, 441-2 (Fed. Cir. 1986); MPEP § 2141.01(a).I. The field of art for Mitchell is "automatic manufacturing by use of computer aided design and control." Mitchell at col. 1, ll. 8-15. The field of art for the Application is controlling an electrorheological ink in a pressure chamber of an ink-jet printer. Application at claim 2, Title, ¶ 1. The field of endeavor of Mitchell is completely different than the field of endeavor of the Application. As for the second test, Mitchell describes solving the problem of supporting an article of manufacture using electrorheological fluids. *See* Mitchell at col. 4, ll. 8-15. Mitchell also fails the second part of the test. Mitchell is non-analogous art and an improper 35 U.S.C. § 103(a) reference. The Applicants assert that claims 11 and 24 are in condition for allowance.

Claims 14 and 28

[0031] The Office Action rejected claims 14 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Mutou. Office Action at p. 10. The Office Action states that Yoshimura discloses all of the claimed limitations except for the limitations listed in claims 14 and 28. *Id.* The Office Action then states that Mutou discloses the omitted elements of claims 14 and 28 and cites column 5, lines 30-48 of Mutou as evidence. *Id.* The Applicant disagrees. The Applicants respectfully asserts that Mutou is non-analogous art.

[0032] As stated above, the two-part test for analogous art is 1) determine if the reference is within the inventor's field of endeavor, and 2) determine if the reference is reasonably pertinent to the particular problem with which the inventor was involved. *In re Deminski*, 796 F.2d 436, 441-2 (Fed. Cir. 1986); MPEP § 2141.01(a).I. The field of art for Mutou relates to "an image display device for forming a visible image for display on a recording medium." Mutou at col. 1, ll. 8-10. More particularly, Mutou describes delivering dry toner particles to a moving belt to create an image on the belt. *Id.* at Figs. 1, 8, col. 2, l. 35 to col. 3, l. 15. The field of art for the Application is controlling an electrorheological ink in a pressure chamber of an ink-jet printer. Application at claim 2, Title, ¶ 1. The field of endeavor of Mutou is completely different than the field of endeavor of the Application. As for the second test, Mutou describes solving the problem of using an electrical field to get toner particles to stick to a belt such that an image is formed. *See id.* Mutou also fails the second part of the test. Mutou is non-analogous art and an improper 35 U.S.C. § 103(a) reference. The Applicants assert that claims 11 and 24 are in condition for allowance.

Claim 15

[0033] The Office Action rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Weidermer. Office Action at p. 11. As stated above, Weidermer is non-analogous art and an improper 35 U.S.C. § 103(a) reference. The Applicants assert that claim 15 is in condition for allowance.

Claim 16

[0034] The Office Action rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Yoshimura in view of Weidermer and Shibata. Office Action at p. 12. As stated above, Weidermer and Shibata are non-analogous art and an improper 35 U.S.C. § 103(a) reference. The Applicants assert that claim 16 is in condition for allowance.

[0035] The Applicant respectfully asserts that claims 1 and 17 are in condition for allowance. Claims 2-4, 8, 9, 11, 12, and 14-16 depend on claim 1 and claims 18, 19, 24, and 26 depend on claim 17. Because the invention of claims 1 and 17 are allowable, the Applicant

respectfully asserts that claims 2-4, 8, 9, 11, 12, 14-16, 18, 19, 24, and 26 are similarly in condition for allowance because they depend from allowable claims. See, *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

[0036] Should additional information be required, the Examiner is respectfully asked to notify the Applicant of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

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